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A DESCRIPTION OF THE ENCYRTID MALE (HYMENOPTERA, CHALCIDOIDEA, ENCYRTIDAE) WITH ARCHAIC STRUCTURE OF METASOMA FROM ROVNO AMBER

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Описание самца энциртиды (Hymenoptera, Chalcidoidea, Encyrtidae) с архаичным строением брюшка из ровенского янтаря. Симутник С. А., Перковский Е. Э. — Описан *Eocencnemus vichrenkoi* Simutnik, sp. n. Ранее описанный по самке род *Eocencnemus* Simutnik с типовым видом *E. sugonjaevi* Simutnik из ровенского янтаря, характеризуется архаичным строением брюшка с вершинным расположением пигостилей, отсутствием замыкающих щетинок на дистальном крае голой косой полоски (linea calva), 3-зубыми мандибулами, длинными жилками передних крыльев. К этому роду предварительно отнесен и вновь обнаруженный самец, также обладающий всеми этими признаками. Новый вид отличается от *E. sugonjaevi* более короткой постмаргинальной жилкой передних крыльев и отсутствием парапсидальных борозд (notauli). Систематическое положение рода обозначено как incertae sedis в подсемействе Tetracneminae. Типовой материал хранится в Институте зоологии им. И. И. Шмальгаузена НАН Украины (Киев).

Ключевые слова: Encyrtidae, *Eocencnemus*, *Eocencnemus vichrenkoi,* ровенский янтарь, эоцен.

A Description of the Encyrtid Male (Hymenoptera, Chalcidoidea, Encyrtidae) with Archaic Structure of Metasoma from Rovno Amber. Simutnik S. A., Perkovsky E. E. — *Eocencnemus vichrenkoi* Simutnik, sp. n. is described. The genus *Eocencnemus* Simutnik (type species *E. sugonjaevi* Simutnik from Rovno amber, described based on a female), is characterized by archaic structure of metasoma with apical position of paratergites, absence of special locking setae on distal margin of bare oblique stripe (linea calva), tridentate mandibles and long venation of the fore wing. The newly found male has all from the characters and preliminarily attributed to the genus. The new species differs from *E. sugonjaevi* by shorter postmarginal vein and absence of notauli. Taxonomic position of this genus in the subfamily Tetracneminae remains uncertain. The type material is deposited in the collection of the Schmalhausen Institute of Zoology (Ukraine, Kyiv).

Key words: Encyrtidae, *Eocencnemus*, *Eocencnemus vichrenkoi,* Rovno amber, Eocene.

This paper is the third communication on the finds of encyrtid wasps in the Rivne amber. In the two previous papers, two new genera and species were described based on females: *Eocencyrtus* Simutnik (Симутник, 2001) и *Eocencnemus* Simutnik (Симутник, 2002) those probably belong to different subfamilies of Encyrtidae. A new male described below is provisionally attributed to the genus *Eocencnemus* Simutnik.

All the examined samples of amber were originally collected either in the Klesov or Dubrovitsa amber deposits in the north of Rivne (formerly Rovno) Region (Ukraine) (Perkovsky et al., 2003 a). The age of this amber is estimated as Late Eocene (Perkovsky et al., 2003 b). The type material is deposited in the collection of I. I. Schmalhausen Institute of Zoology, National Academy of Sciences of Ukraine (Kyiv).

Eocencnemus vichrenkoi Simutnik, **sp. n.** (fig. 1, *1—5*).

Material. Holotype ♂, K—661, Klesov, Rovno amber, Late Eocene.

Male. Body length 1.5 mm. Head and body black with steel gray shine. Antenna black. Legs black, knees and mid tarsus brown. Veins of fore wing dark brown.

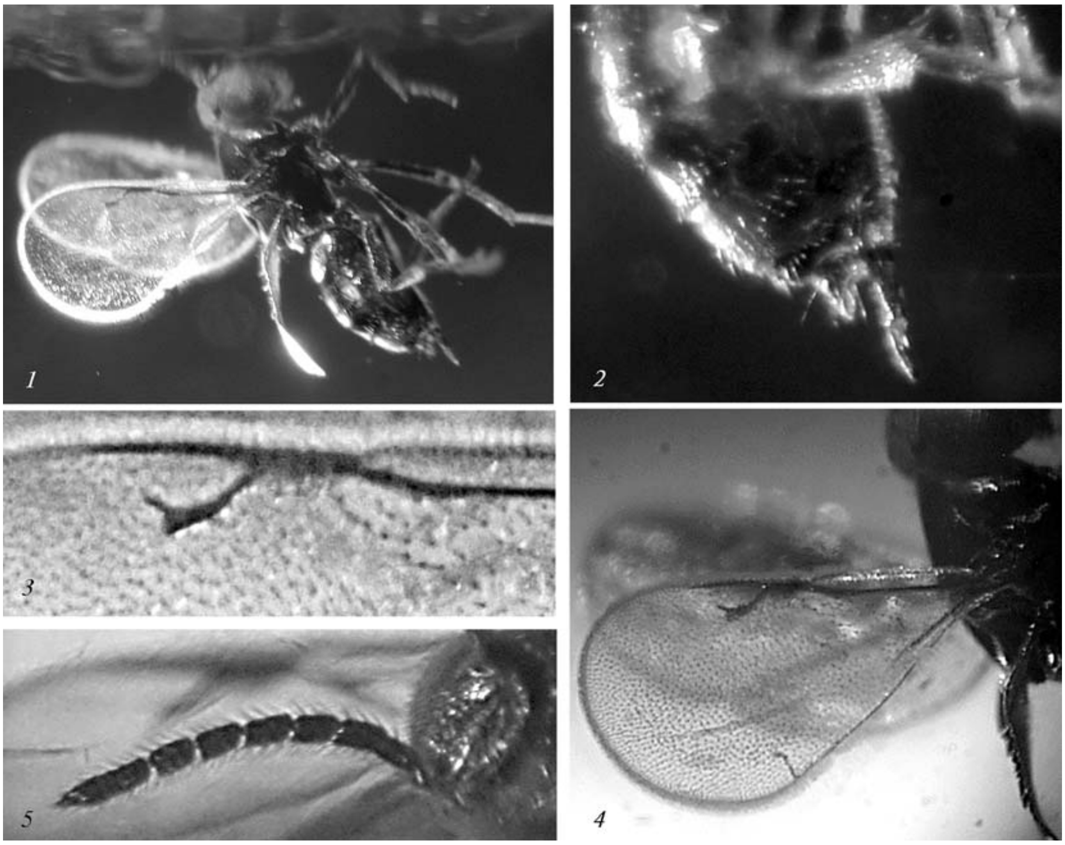


Рис. 1. *Eocencnemus vichrenkoi*, ♂, голотип, К—661, Клёсов, ровенский янтарь, поздний эоцен: *1* — вид сбоку; *2* — брюшко; *3*, *4* — жилкование передних крыльев; *5* — усик.

Fig. 1. *Eocencnemus vichrenkoi,* ♂, holotype, K–661, Klesov, Rovno amber, Late Eocene: *1* — lateral view; *2* — metasoma; *3*, *4* — venation of fore wing; *5* — antenna.

Head somewhat wider than high (ratio 34 : 27); width of vertex 0.21 mm; vertex, frons and face with shallow cellular sculpture; dorsal margin of occiput acute; ocelli large, forming obtuse triangle; distance between posterior ocellus and eye margin more than between ocellus and occipital margin; distance between ocellus and occipital margin slightly less than ocellus diameter; compound eye vertical diameter approximately as long as intermalar distance; facial cavity deep, sharply emarginated, its dorsal margin almost reaching anterior ocellus; antennal grooves slightly below level of eye ventral margin; mandible tridentate; scapus short (0.15 mm), slightly widened, all flagellomeres longer than wide, flattened, densely pubescent (fig. 1, *5*); clavus three-articulate, slightly longer than 2 preceding joints combined, as wide as flagellum.

Mesosoma: pronotum short; mesonotum short setulose, almost smooth, axillae and scutellum with indistinct microcellular sculpture; scutum as long as scutellum (0.3 mm : 0.3 mm), width unavailable for measuring; mesothoracal pleura smooth, microcellular sculptured.

Fore wing: wide, not darkened, almost twice as long as wide (1.16 mm : 0.63 mm), uniformly pubescent; bare oblique stripe (linea calva) without enclosing setulae on distal margin; fringe short; veins long (fig. 1, *3*–*4*).

Fore tibia with moderately long curved spur; midtibial spur slightly shorter than first tarsomere. Propodeum short.

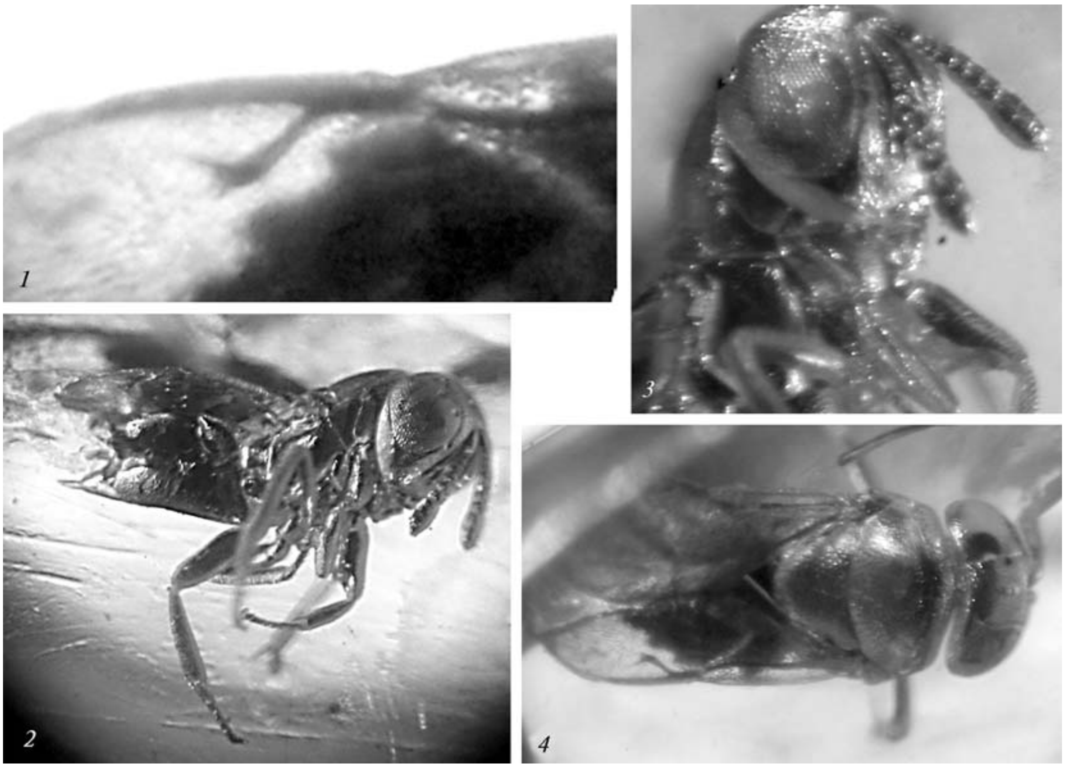


Рис. 2. *Eocencnemus sugonjaevi,* ♀, голотип, UA—363, ровенский янтарь, поздний эоцен: *1* — жилкование передних крыльев; *2* — вид сбоку; *3* — голова и усики; *4* — вид сверху.

Fig. 2. *Eocencnemus sugonjaevi,* ♀, holotype, UA—363, Rovno amber, Late Eocene: *1* — venation of fore wing; *2* — lateral view; *3* — head and antennae; *4* — dorsal view.

Metasoma: gaster as long as thorax, uniformly segmented, with apical position of pygostyli (fig. 1, *1—2*).

Female unknown.

Etymology. The new species is named for Anatoly Sygneyevich Vikhrenko, the biology school teacher.

Taxonomical notes. It is commonly accepted among encyrtidologists to establish no new species, and certainly no new genera based on males. "Various special morphological modifications are more expressed in females than in males of [encyrtids], making determination of species on the basis of males more difficult tha n on females, and some genera virtually indistinguishable based on this sex" (Тряпицын, 1989: 23). We therefore consider erection of another new genus based on the male described above inexpedient; we assign it to the genus *Eocencnemus* Simutnik (Симутник, 2002), which is characterized by an archaic structure of abdomen with the pygostyli apical, no enclosing setulae on the distal margin of the bare oblique stripe (linea calva) on the wing, the mandibulae tridentate, and veins on the fore wing long (fig. 2, *1—4*). The male described above also possesses all these characters, differing from *E. sugonjaevi* by the the pa rapsidial grooves (notauli) absent and the postmarginal vein much shorter (fig. 1, *3* and 2, *1*).

The apical position of the pygostyli rarely occurs among recent encyrtids, among them *Quadrencyrtus* Hoffer, *Eucoccidophagus* Hoffer (Тряпицын, 1989; Симутник, 2002, 2005). Three of the four encyrtid specimens from the Late Eocene Rovno amber

have archaic morphology abdomen. Apparently, this character was more widespread in the Late Eocene than nowadays.

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